Issue Spotlight Transportation and Technology Symposium Series

July 2011

Event Focuses on Improving Infrastructure's Resilience

uilding bridges on a personal and professional level in times of calm can help protect real bridges in times of storms. The importance of developing partnerships, sharing information and improving communication across various levels of government were key points stressed by panelists at the North Jersey Transportation Planning Authority's (NJTPA) June 29 symposium "Toward a More Resilient Region."

Officials representing law enforcement, emergency response and transportation planning agencies led a discussion on how to make the region more resilient in the face of disasters.



"A resilient community or region is one which can recover from or adapt to adversity or changing conditions," said Hunterdon

Freeholder Matthew Holt, NJTPA Third Vice-Chairman. "It's one that can recognize hazards and threats and make the necessary changes to

improve its defenses and reduce future risks. To achieve such resiliency requires an integrated and coordinated approach—which doesn't happen by chance."

Instead, as New Jersey Homeland Security Director Charles McKenna noted, it takes a combination of leveraging technologies and forging strong working relationships. McKenna said the symposium offered participants a "chance to talk and trade business cards," which will help them work together cohesively during an emergency.

"This symposium is part of an important, ongoing conversation about how to bring local public, private and other stakeholders together with state and federal partners to share information and

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Technology and Teamwork Improve System Resilience

aintaining safe, secure, and resilient infrastructure was a top focus of keynote speaker Mitchell Erickson, Senior Advisor for Northeast Operations at the U.S. Department of Homeland Security's Science and Technology Directorate.

Erickson emphasized the NJ reed to identify and reduce vulnerablilities of high-risk buildings, transportation facili-213 ies, and other infrastructure.

He also stressed the importance of speeding up response and recovery operations when emergencies such as terrorist attacks or natural disasters develop. While new technologies can improve deterrence and response efforts, he said the key is to "get these tools out of the supercomputer labs and onto your desktops so you can use them."

Erickson observed that system resilience is most often tested not by "low-probability" incidents caused by terrorism or Mother Nature, but manmade problems such as electric power grid failures. "We have plenty of these to challenge us all the time so that when a big [disaster] comes, we're ready to deal with it," he said.

While he acknowledged the effectiveness of using emerging technologies, he said today's "top-down" resiliency vision involves everything from collaborating with federally funded university centers of excellence (such as those at Rutgers University and Stevens Institute of Technology) to



Mitchell Erickson, U.S. Department of Homeland Security.

engaging the private sector. "It has to be a partnership," Erickson said. "



Port Authority Makes Resilience a High Priority for New and **Existing Infrastructure**

esilience is the ability to withstand, recover and adapt," explained John Drobny, Director of Security Project Management at the Port Authority of New York and New Jersey. Drobny's presentation highlighted some of the ongoing efforts by the Port Authority to improve resilience for new infrastructure as well as existing facilities.

Drobny said the Port Authority defines the concept of critical infrastructure resilience with four R'srobustness, redundancy, resourcefulness and rapidity. He noted that the authority has invested more than \$1 billion since 9/11 on various measures to improve resilience, focusing primarily on hardening and strengthening facilities, improving access control and closed-circuit television, intrusion detection and communications infrastructure.

Drobny also discussed the new World Trade Center project currently under construction in lower Manhattan in terms of its security and resilience strategies. "The Port Authority will create the highest standards of security for any mixed use/commercial site in North America to date," he said.

The new WTC facility will have full security coordination with PATH, subway and pedestrian travel. In addition, the Port Authority is focused on strategies to enhance deterrence and detection, to limit the extent of any problems and to work in coordination with other regional agencies. It's all part of a strategy to make security at the site "intuitive and trans-



John Drobny, Port Authority of New York and New Jersey.

parent" in an effort to maintain lower Manhattan's vibrancy and thriving economic activity.

"The new Chairman of the Port Authority's Board of Commissioners, former New Jersey Attorney General David Samson, said shortly after taking over in February that improving security at the Port Authority's facilities would be a top priority," he said.

Drobny concluded his presentation by noting, "The Port Authority strives to balance security and resilience with our mission—facilitating mobility...the flow of people and goods...while stressing security and safety as our top priority."





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> NJTPA Executive Director: Mary K. Murphy

MPOs Widen Range of Security Planning

etropolitan Planning Organizations (MPOs) such as the NITPA and its Philadelphia-area partner, the Delaware Valley Regional Planning Commission (DVRPC), can help incorporate a broader range of people into transportation security planning, according to panelist Zoe Neaderland, DVRPC Manager of Transportation Safety and Congestion Management.

Neaderland said MPOs already conduct relevant studies and a lot of modeling, forecasting, and related work that touches on transportation security planning. However, she said it's important to foster



Zoe Neaderland, Delaware Valley Regional Planning Commission.

communication with other agencies to put the pieces together. Neaderland suggested that while security concerns might preclude MPOs from working on certain tasks, MPOs can provide valuable technical support in redundancy planning and their resources can be effective in developing management and operations plans for moving people not only during evacuations but in large gatherings like sports events, for example.

"MPOs can provide some fresh ideas," said Neaderland. "We can bring people together. We're engaged with a whole wide range of [stakeholder] groups...and we're happy to help."



Improving Infrastructure's Resilience

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address regional infrastructure vulnerabilities—through the lens of transportation planning—so that collectively we are better prepared for both the expected and the unexpected," said NJTPA Executive Director Mary K. Murphy.

NI Transit Chief Planner Rich Roberts said that since "the transportation sector has its own language" and so does law enforcement, events like the symposium can help both sides understand each other's work. He added that the discussions at such events can help NJ Transit determine

what investments will be necessary to ensure the longterm resiliency of its system.

The event was the fifth in the NJTPA's Transportation and Technology Symposium Series, which began in 2010. Powerpoint files of some of the panelist's presentations are available for download at www.njtpa.org.



Clockwise from top left: Nearly 100 people attended; NJ Transit Chief Planner Rich Roberts; (l-r) Middlesex County Planning Director George Ververides, Middlesex County Supervising Planner for Transportation Tony Gambilonghi, and Somerset County Freeholder Peter Palmer follow the discussions; NJTPA Director of External Affairs Mary Ameen; event panelists (1-r) Zoe Neaderland, DVRPC; Mitchell Erickson, U.S. Department of Homeland Security; John Drobny, Port Authority of N.Y./N.J.; Steven Gutkin, Regional Catastrophic Planning Team; Mario Sinatra, N.J. State Police; and Mary K. Murphy, NJTPA Executive Director.

Assessing the Damages of Severe Floods

ith all of the pressing needs that arise in the aftermath of a destructive flood, local officials shouldn't overlook the importance of collecting detailed information for a damage assessment, according to Mario Sinatra Jr., an Assistant Unit Head with the New Jersey State Police Office of Emergency Management.

Building a comprehensive inventory of the infrastructure that was compromised can aid in obtaining reimbursement through state and federal funding streams, as well as developing projects that address recurring problems, he said. When a major storm

appears imminent, Sinatra said his office reaches out to local governments in advance to tell them to record the impacts that any roads, bridges, homes, buildings and other facilities have endured from flooding.



Mario Sinatra Jr., New Jersey State Police Office of Emergency Management.

Sinatra discussed some of the challenges of evacuating residents during severe floods, such as those that have afflicted homeowners along the Passaic River in recent years. Residents are sometimes

> warned to leave but refuse, which may mean emergency responders have to divert critical resources to the later for a rescue mission.

Sinatra said that emergency

officials must make tough decisions based on limited information. He recalled an incident when a panicked resident called local authorities to report that an unprecedented volume of water had surged over a dam near his home. The severity turned out to be exaggerated, but without the advantage of time to survey the scene and verify the report, emergency personnel took no chances and called for an evacuation.

"We don't want to be the ones who have to go down the street in Paterson on a boat because we didn't tell someone to leave," Sinatra said.

Organization Coordinates Emergency Plans for Metro Region

atastrophes like hurricanes, electrical grid failures or the release of noxious gases can spread their impacts far and wide. To better coordinate the emergency responses and operations by towns, counties, state agencies and the private sector, FEMA has funded regional planning programs in the nation's 10 major urban areas.

The New York Metropolitan Statistical Area, composed of 30 counties in New York, New Jersey, Connecticut

Planning Team (RCPT). Steven Gutkin, Executive Director of the Regional Integration Center, which is the operational arm of the RCPT, said FEMA "got it right" in funding regional planning as a means to ensure the effective use of emergency devices and equipment which had been the past focus of FEMA funding.

_The RCPT has completed a series of baseline plans covering key topics such as evacuation and sheltering, dis-



Steven Gutkin, Regional Catastrophic Planning Team.

The RCPT coordinates emergency responses and operations in an area composed of 30 counties in four states.

and Pennsylvania, has received \$26 million since 2008 to support a Regional Catastrophic

aster housing recovery, critical infrastructure protection and debris management. The plans are not intended to supplant

the work of counties and towns throughout the metropolitan area, but to insure "they all work together" when a disaster strikes, Gutkin said.

The Regional Integration Center is located near the World Trade Center in lower Manhattan and acts as a regional hub for the program with staff expertise in multiple disciplines.

Future focuses will be on training personnel to implement the plans and conducting exercises related to various scenarios. Efforts are also underway to gain greater cooperation by the private sector, for instance, to accommodate surges in demand for communications during crisis conditions.

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